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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,145	05/31/2001	Brian Fields	CC-3184	9252

7590 02/27/2003

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EXAMINER

MAI, TRI M

ART UNIT

PAPER NUMBER

3727

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/857,145

Applicant(s)

FIELD, BRIAN

Examiner

Tri M. Mai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

1. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke, III in view of Carnaudmetal (WO9637414), and further in view of either Schmalbach (EP432659) or the admitted prior art. Clarke, III teaches a container having a center panel that can be made with various sizes (col. 2, line 24), and an area of less than .5 square inches. Clarke, III meets all claimed limitations except for the diameter of the center panel being less than 1.835 and the ratio aspect between 1.3 and 1.7. Carnaudmetal teaches that it is known in the art to provide various diameters for a center panel (Table 6). It would have been obvious to one of ordinary skill in the art to provide the diameter of the center panel being less than 1.835 in Clarke, III as taught by Carnaudmetal to provide the desired end wall for the container.

With respect to the opening ratio, Schmalbach teaches that it is known in the art to provide an opening about 1.5 (31mm/20mm about the opening in Fig. 1). It would have been obvious to one of ordinary skill in the art to provide the opening with a ratio about 1.5 in Clarke, III as taught by Schmalbach to provide the desired opening for the container.

Furthermore, the specification discloses an opening with a ratio about 1.47 (page 8, line 13). It would have been obvious to one of ordinary skill in the art to provide an opening with a ratio about 1.5 in Clarke, III as taught by the admitted prior art to provide the desired opening for the container.

With respect to the discharge time as shown in Fig. 3, it is noted that the relationship between the discharge rate and area is well known in the art by the equation  $Q=VA$  [ $Q$ =flow rate,  $V$ = fluid velocity,  $A$ = area]. Hence, there is a direct relationship between discharged rate

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(Q) and the Area. Thus, to adjust the area to control the flow rate are within the skills of one of ordinary skill in the art.

### *Response to Arguments*

2. Applicant's arguments filed 12/09/02 have been fully considered but they are not persuasive. With respect to Clarke III reference, applicant argues that although Clarke teaches the area of the opening but silence on the flow characteristics. However, applicant fails to set forth exactly what are these characteristics in the claims. Applicant amended the claim to recite that the larger opening would "improve flow characteristics". However, none of these characteristic being set forth in the claims. Furthermore, it is exceedingly obvious to one of ordinary skill in the art would know that by increasing the area of the opening would improve the flow characteristics with respect to quantity of fluid.

With respect to the ratio, applicant argues that the container in Schmalbach does not teach the dimension of the drawings of Schmalbach cannot be used. However, the drawings clearly show an approximation of the disclosed invention. The approximation with respect to the ratio can be used.

With respect to the use of data demonstrating the invention provides unexpected beneficial flow characteristic, applicant argues that the flow characteristics of various end being different by geometry and not by size. It appear that this is contrary to the law of physics, see attached Manning equation, where it dictates that the rate of flow  $Q$  has a direct relationship with the area of the opening. The Manning's equation, on which the rate of flow is based upon, has nothing to do with the geometry of the opening. Applicant's statement that superior flow (increasing rate of flow) is mainly due to the opening's geometry clearly contradicts the law of

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physics. As set forth above, to increase the rate of flow, it is exceedingly obvious to increase the size of the opening, which is clearly taught by Clarke, III. Furthermore, it would have been an obvious matter of design choice to provide the opening in the claimed dimension, since such a modification would have involved a mere change in size and/or proportion. A change in size/proportion is generally recognized as being within the level of ordinary skill in the art. ( see In re Rose, 105 USPQ 237 (CCPA 1955), and In re Tanczyn, 44 CCPA 704, 766, 241)

With respect to the Declaration of Mr. Brian Fields, the declaration has been fully considered but they are not persuasive. As set forth above, Mr. Fields' statement that the increase in flow rate is due to the geometry of the opening is absurd and contrary to the law of physics with respect to hydrology. Manning's equation  $Q = VA$  dictates the rate of flow has a direct relationship on the area (A) and velocity (V).

Furthermore, one of ordinary skill in the art would recognize this relationship between rate of flow (Q) and the area (A) and would find obvious to increase the rate of flow by increasing the area of the opening.

### ***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri M. Mai whose telephone number is (703)308-1038. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lee W Young can be reached on (703)308-2572. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3579 for regular communications and (703)305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1148.

Tri M. Mai *T. Mai*  
Examiner  
Art Unit 3727

February 22, 2003